

CLAIMS

What is claimed is:

1. A control system for a plumbing fixture that has a plurality of components which are electrically operated, the control system comprising:

a main controller with a first microprocessor, a first memory connected to the first microprocessor, and a plurality of outputs coupling the first microprocessor to the plurality of components;

an input controller with an input device by which a user of the plumbing fixture is able to enter commands for selectively operating the plurality of components, the input device connected to a second microprocessor which is connected to a second memory containing a first software program for execution by the second microprocessor to process the commands from the input device, the second memory also containing a second software program for execution by the first microprocessor to operate the plurality of components, and

a transfer mechanism to convey the second software program from the second memory to the first memory upon activation of the control system.

2. The control system as recited in claim 1 wherein the transfer mechanism conveys the second software program from the first memory to the second memory upon application of electrical power to the control system.

3. The control system as recited in claim 1 wherein the transfer mechanism conveys the second software program from the first memory to the second memory upon operation of the input device by the user.

4. The control system as recited in claim 1 wherein the first memory is a non-volatile memory device.

5. The control system as recited in claim 1 wherein the second memory permanently contains software routines for operating the plurality of components.

6. The control system as recited in claim 1 wherein the main controller is generic for controlling a plurality of models of plumbing fixtures having different pluralities of components; and the input controller is unique to one of the plurality of models of plumbing fixtures and the second software program is unique for controlling only those components on the one of the plurality of models of plumbing fixtures.

7. The control system as recited in claim 1 wherein the main controller is located in a housing that is separate and remote from the input controller.

8. A method for controlling a whirlpool tub that has a plurality of components which are electrically operated, the method comprising:

providing a main controller that has a first microprocessor, a first memory connected to the first microprocessor, and a plurality of outputs coupling the first microprocessor to the plurality of components;

providing an input controller that has an input device by which a user of the whirlpool tub is able to enter input commands for selectively operating the plurality of components, the input device connected to a second microprocessor which is connected to a second memory;

storing a first software program and a second software program into the second memory;

upon activation of the control system, transferring the second software program from the second memory to the first memory;

executing the first software program by the second microprocessor to process the input commands from the input device and transmit control commands to the main controller; and

executing the second software program by the first microprocessor to control the plurality of components in response to the control commands.

9. The c method as recited in claim 8 wherein activation of the control system comprises applying of electrical power to the control system.

10. The method as recited in claim 8 wherein activation of the control system comprises operation of the input device by the user.